## SUMMARY OF CHANGES TO ENV-A 1400

Every year, as required by RSA 125-I:4, DES proposes changes to the table of regulated toxic air pollutants (RTAPs) and their ambient air limits (AALs), based on changes made to the list of chemical substances by the American Conference of Governmental Industrial Hygienists (ACGIH). This year, we adopted amendments based on ACGIH changes made in 2002 and 2003. The 2003 changes were published as we were completing work on the 2002 changes, so it was decided to address both this year. The new RTAPs are:

> Trichlorophon; 2-Chloro-1-propanol; Pinene (alpha); N-Vinyl-2-pyrrolidone; 1-Chloro-2-propanol; Pinene (beta); 2-Ethylhexanoic acid; Isobutyl nitrite; 1,3-Dioxolane; Demeton-S-methyl; Tert-Amyl methyl ether (TAME); Terbufos; 3-Carene; Jet fuels; and Diesel fuel (fuel oils #2 and #4, diesel oil, and diesel #2 and #4).

Emissions from the combustion of jet fuels, diesel oil, #2 fuel oil, #4 fuel oil, #2 diesel and #4 diesel are exempt from regulation under RSA 125-I:3, III(b) and Env-A 1402.01(b), but emissions of these fuels due to vaporization are not. DES conducted a thorough analysis and has determined that emissions from all existing fuel storage sources in the state due to vaporization are below the *de minimis* levels adopted for these fuels. As a result, DES believes that the addition of these compounds as required under RSA 125-I:4, I(b) will not create a regulatory burden for any existing stationary source.

AALs for existing RTAPs were modified for 34 substances, all based on changes made by ACGIH to the occupational exposure limits. In addition, three substances were either combined or expanded by ACGIH. For example, Silicon carbide was expanded to non-fibrous (inhalable fraction), non-fibrous (respirable fraction), and fibrous, while Zinc oxide dust and Zinc oxide fume have been reduced to Zinc oxide. Also, values have been added for Propionaldehyde, which was previously added to the list; however, data limitations prevented us from deriving AALs in accordance with Env-A 1411 until now.

The Department also deleted carbon dioxide from the list. We determined that toxic levels of carbon dioxide can only exist in confined areas, not in the ambient air.

In addition to changes to the table, the Department is exempting devices whose actual emissions, without the aid of air pollution control devices, are less than the *de minimis* levels or are less than 50% of the annual and 24-hour AALs. The reasoning behind this exemption is that many small companies have devices or processes

which could potentially emit RTAPs in excess of the AALs if they operated at maximum capacity, for 24 hours a day, 365 days a year. Examples of these types of sources include auto body shops, auto repair shops, dry cleaners, photo developers, small custom furniture shops, and furniture refinishers. Since these sources do not operate that way and, thus, actually emit only a fraction of their potential emissions, it was decided to adopt a more practical way of determining compliance for such companies. This is consistent with the approach EPA uses for determining whether sources subject to certain National Emission Standards for Hazardous Air Pollutants, such as the Wood Furniture Manufacturing MACT, can be exempted from Title V permitting requirements. The rule also requires such companies to keep records on-site to document that their actual emissions are less than *de minimis* levels or 50% of the AALs, so that Department inspectors can easily ascertain compliance.

Another change is the addition of the word "untreated" in front of "wood" in Env-A 1402.01(b)(4). This rule exempts the combustion of various fuels, including wood, and DES wanted to clarify that only untreated wood should be exempt from Env-A 1400. The term "untreated wood" is defined in Env-A 101.294 as "any timber, board or sawn dimensional lumber which has not been treated, coated or preserved. This term does not include any manufactured building material, such as plywood or waferboard."

The other substantive changes to Env-A 1400 concern the determination of 24-hour and annual AALs in Env-A 1410.01 and Env-A 1411.01. The change to Env-A 1410.01 addresses a situation that was found to occur infrequently (14 RTAPs) where the 24-hour AAL (based on a modified occupational ceiling limit) is less than the annual AAL (based on the EPA reference concentration limit (RfC)). Since RfCs represent a threshold inhalation concentration below which most members of the human population could be exposed without an appreciable risk of deleterious effects during a <u>lifetime</u> for non-cancer health effects, the 24-hour AAL should never fall below the RfC. As a result, the amended language now specifies that when the annual AAL is based on a RfC, the 24-hour AAL will also be the RfC if the modified occupational ceiling limit is calculated to be less than the RfC.

Regarding the determination of annual AALs in Env-A 1411.01, the original Env-A 1400 workgroup agreed that EPA's Integrated Risk Information System (IRIS) would be used as the primary source of information for establishing AALs for individual RTAPS. In establishing the RfCs, EPA only evaluated chemicals that were not considered carcinogens. Since that time, EPA has begun to evaluate an increasing list of carcinogenic chemicals for both cancer and non-cancer health effects, establishing both RfCs for chronic non-cancer health

effects and inhalation unit risk values for carcinogenic effects. Under the old wording of Env-A 1400, AALs could be established for carcinogenic chemicals, such as vinyl chloride and benzene, based only on their non-carcinogenic health effects. The adopted change will assure that the AALs for carcinogenic chemicals for which non-cancer RfCs have been established are protective for both cancer and non-cancer health effects.

Please call Rick Rumba at 271-1987 if you have any questions about these revisions to Env-A 1400.